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Claims:

1. A mixer, having an input amplification part for producing an amplified signal coupled to a multiplication part, the multiplication part being arranged to multiply the amplified signal by a local oscillator signal and output a mixed signal, the mixer also having means for suppressing coupled from a node between the input amplification part and the multiplication part, to a power supply line, the suppressing means suppressing frequency components at the node to thereby suppress unwanted high-frequency in band output signal components of the multiplication part, the unwanted high-frequency in band output signal components being products of the local oscillator signal with harmonics of the baseband signal.

2. The mixer according to claim 1, wherein the suppressing means improves the in-band linearity of the multiplication part.

3. The mixer according to claim 1, wherein the means is an impedance.

4. The mixer of claim 3, wherein the impedance is a capacitor.

5. The mixer of claim 1, wherein the multiplication part comprises MOS transistors.

6. The mixer of claim 1, wherein the multiplier part is arranged in a balanced differential form.

7. The mixer of claim 1, wherein the mixer is arranged as a Gilbert cell.

8. The mixer of claim 1, wherein the suppressing means is coupled to a VDD power supply line.

9. The mixer of claim 5, wherein the MOS transistors are nMOS transistors.

10. The mixer of claim 5, wherein the suppressing means is coupled to a VSS power line and the MOS transistors being pMOS transistors.

11. The mixer of claim 1 having phase compensation for mirror suppression.

12. The mixer of claim 1 in the form of an integrated circuit.

13. The mixer of claim 1 wherein the unwanted high-frequency in band output signal components are the frequency of the local oscillator signal +/- 3 times the frequency of the baseband signal.

14. A wireless or wireline transceiver having the mixer of claim 1.

15. The transceiver of claim 14, comprising in a transmit path a mixer for an in-phase signal, and a mixer for a quadrature phase signal.

16. A method of producing up converted signals using a mixer, the mixer comprising a node between an input amplification part and a multiplication part of the mixer, the method comprising:

amplifying an input baseband signal to the mixer,

multiplying the amplified signal by a local oscillator signal,

outputting a mixed signal, and

suppressing one or more unwanted high frequency signal components of an output signal of the multiplication part, the unwanted high-frequency in band output signal components being products of the local oscillator signal with harmonics of the baseband signal.

17. The method according to claim 16, wherein suppressing improves the in-band linearity of the multiplication part.

18. The method of claim 16, wherein multiplying is in a balanced differential form.

19. The method of claim 16 having phase compensation for mirror suppression.

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20. The method of claim 16 wherein the unwanted high-frequency in band output signal components are the frequency of the local oscillator signal +/- 3 times the frequency of the baseband signal.